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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,000	12/30/2003	Julie Y. Qian	SAM0029/US	5506
33072	7590	08/19/2005	EXAMINER	
KAGAN BINDER, PLLC SUITE 200, MAPLE ISLAND BUILDING 221 MAIN STREET NORTH STILLWATER, MN 55082			GOODROW, JOHN L	
			ART UNIT	PAPER NUMBER
			1756	

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/751,000

Applicant(s)

QIAN ET AL.

Examiner

John L. Goodrow

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 31 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are to a method of forming an image by causing an image to be formed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosel [3753760] in view of Handbook of Imaging Materials by Diamond and Weiss. Applicants' claims are to a toner composition a method of making a toner composition and an imaging process. The toner has an amphipathic copolymer as a binder with a visual enhancement additive in the binder i.e. encapsulated. Kosel teaches the use of an amphipathic polymer note Col.9 lines 15-50 that is made by dispersing the materials and milling the mixture note Col. 15lines 40-65 as a toner binder in an imaging process note Col.1 lines 15-40. Chemical reactions with the chromophores and polymer is to

Art Unit: 1756

employ the dye which is copolymerized into a solvated backbone before the backbone is grafted or blocked polymerized with the non-solvated moieties (D-moieties) Col.18 lines 30-40. Kosel fails to teach the particle size and liquid toner preparation which are taught by Diamond and Weiss note page 246. It would be obvious to one of ordinary skill in the art at the time of applicants' invention with a reasonable expectation of success to use the known particle sizes and methods of mixing of the polymers and pigments to obtain a toner with an encapsulated pigment that has an amphipathic polymer in a binder for the toner particle that improves the dispersion of the toner in a liquid carrier.

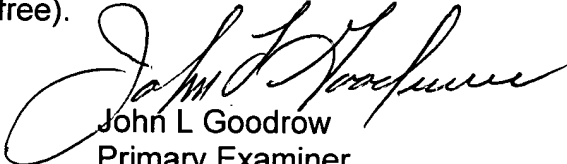
Claims 1-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quin et al. in view of Keoshkerian et al. Quin[20020128349] teaches a graft copolymer and a steric stabilizer with a pigment in a toner to improve an electrophotographic ink composition with improved dispersion stability. The amphipathic polymer absorbs onto, ionically bonds to or covalently bonds to the core toner binder having a pigment. The attached amphipathic polymer shell acts to sterically stabilize the core particles. Note [0009]. Quin fails to teach the reaction of the sterically stabilizer with a pigment. Keoshkerian et al teaches the reaction of a hydrophobic stabilizer and a pigment with a hydrophilic polymer note Col. 11 lines 50-65. Also Fig 1 shows that the stabilizer is on the surface of the toner particle. It would be obvious to one of ordinary skill in the art at the time of applicants' invention with a reasonable expectation of success to use in place reaction of the amphipathic polymers and pigments in the toner composition in which the surface of the pigment is encapsulated by the polymer to improve the stability in a liquid carrier.

Art Unit: 1756

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L. Goodrow whose telephone number is 571-272-1384. The examiner can normally be reached on Monday -Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark F. Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John L. Goodrow
Primary Examiner
Art Unit 1756
